

ABSTRACT OF THE DISCLOSURE

A method of handling data packets in a series of network switches is disclosed.

An incoming data packet is received at a data port of a first lower capacity switch of the series of network switches and a stack tag is resolved from a header of the incoming

5 data packet. The incoming data packet is forwarded to a first higher capacity switch, on a first stacked connection operating at a first data rate, based on the stack tag. A destination address of said incoming data packet is resolved by the first higher capacity switch and the header of the incoming packet is modified. The incoming data packet is forwarded to a second higher capacity switch, on a second stacked connection operating at a second data rate, based on the resolved destination address, where the header of the incoming data packet is modified and the incoming data packet is forwarded to a second lower capacity switch on a third stacked connection operating at the first data rate. Lastly, an egress port of the second lower capacity switch is determined based on the stack tag and the incoming data packet is forwarded to the egress port. A network switch configured to perform the above method of handling data packets is also disclosed.

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